REMARKS

Applicant has reviewed and considered the Office Action mailed on August 25, 2006, and the references cited therein.

Claims 1-3, 9, 14-18, and 21 are amended and no claims have been canceled or added. As a result, claims 1-30 are still pending in this application.

§103 Rejection of the Claims

Claims **1-3, 6, 9, and 14-18** were rejected under 35 USC § 103(a) as being unpatentable over **Wright et al.** (U.S. **6,173,159**) in view of **Khullar** (U.S. **2002/0154611**).

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. MPEP § 2142

Independent claim 1 is directed to a method comprising: (a) calculating link margin for a wireless device using a power level of a signal received by the wireless device and a receiver sensitivity indication; and (b) adjusting at least one of transmit data rate and transmit power level for the wireless device based on said calculated link margin. As is apparent from the language of the claim, claim 1 is directed to an open loop technique that calculates link margin for a wireless device based on a power level of a signal received by the wireless device. At least one of transmit data rate and transmit power level of the wireless device is then adjusted using the calculated link margin.

As stated by the Examiner, Wright et al. does not disclose the adjustment of transmit data rate or transmit power level based on link margin. Khullar is directed to a method, apparatus, and system for exchanging information in a communication system having a plurality of transmission schemes. With reference to Fig. 2, in steps 201, 203, 205, 207, and 209, Khullar selects a power level and transmission scheme that generates sufficient link performance to reliably maintain a link between terminals in a cell (see paragraph 0029 of Khullar). The method then determines whether multi-slot operation is possible or desirable (see paragraph 0035 of

Khullar). If it is, the transmit power is reduced in step 215. In step 217, a new transmission scheme is selected to achieve at least the same link margin that existed before the reduction in transmit power (see paragraph 0040 of Khullar).

In paragraph 0041 of Khullar, as cited by the Examiner, two approaches are disclosed for selecting the new transmission scheme in step 217. In one approach, receiver sensitivity information for a plurality of different transmission schemes is stored in a device. Then, when transmit power is reduced a certain amount in step 215, a transmission scheme may be selected that has a receiver sensitivity that is lower than that of a presently used transmission scheme by at least the amount of the power reduction. As is apparent, this technique does not require link margin to actually be calculated. In the other approach, Khullar iteratively selects more robust transmission schemes and measures link margin at the reduced power level until a scheme is selected that achieves at least the link margin that was achieved at the higher power. However, the link margin is measured at the receiving device and the link margin information is fed back to the transmitting device in a closed loop fashion (see, e.g., paragraph 0028, etc.). As described above, claim 1 describes an open loop technique that does not require feed back from the receiving device. Neither Wright et al. or Khullar discloses or suggests, either alone or in combination, "calculating link margin for a wireless device using a power level of a signal received by the wireless device and a receiver sensitivity indication" and then "adjusting at least one of transmit data rate and transmit power level for the wireless device based on said calculated link margin." Claim 1 has been amended herein to more clearly convey the open loop nature of the claimed method.

Based on the foregoing, it is submitted that a prima facie case of obviousness has not been established with respect to claim 1. Reconsideration and allowance of claim 1 is therefore respectfully requested. A similar argument applies to amended independent claim 17.

Independent claim 9 is directed to a wireless device comprising: (a) a wireless transceiver; (b) a link margin determination unit to determine a link margin associated with the wireless transceiver using a received power level of the wireless transceiver; and (c) a transmit data rate determination unit to select a transmit data rate for the wireless transceiver based on said link margin determined by said link margin determination unit.

As with claim 1, claim 9 recites a device that uses an open loop transmission parameter adjustment technique. That is, the link margin determination unit determines a link margin using "a received power level of the wireless transceiver." The transmit data rate determination unit then selects a transmit data rate for the wireless transceiver "based on said link margin determined by said link margin determination unit." Neither Wright et al. nor Khullar discloses or suggests, either alone or in combination, a wireless device that determines a link margin using a received power level of its own wireless transceiver and that then selects a transmit data rate for the transceiver based on the determined link margin. As described above, Khullar discloses a closed loop approach. Claim 9 has been amended herein to more clearly convey the open loop nature of the claimed method.

Based on the foregoing, it is submitted that a prima facie case of obviousness has not been established with respect to claim 9. Reconsideration and allowance of claim 9 is therefore respectfully requested.

Claims 2-3 and 6, claims 14-16, and claim 18 are dependent claims that depend either directly or indirectly from independent claims 1, 9, and 17, respectively. Consequently, these claims are allowable for at least the same reasons as their corresponding base claims. The claims also provide further bases for patentability. For example, claim 6 adds to the method of claim 1 "determining receiver sensitivity, before calculating link margin, based on a data rate of a received signal." As described on page 6 of the specification as filed, in at least one embodiment, the data rate of a received signal may be determined and used to select a receiver sensitivity value from, for example, a table. The receiver sensitivity value may then be used to calculate link margin. Neither Wright et al. nor Khullar discloses or suggests, either alone or in combination, determining receiver sensitivity based on a data rate of a received signal, for use in calculating link margin. A similar argument applies to dependent claim 15.

Claims **4-5, 8, 10-13, and 19-20** were rejected under 35 USC § 103(a) as being unpatentable over **Wright et al** (U.S. **6,173,159**) as modified by **Khullar** (U.S. **2002/0154611**) as applied to claims above, and further in view of **Wentink** (U.S. **2005/0030976**).

The published Wentink application is not proper prior art in the present case. Wentink was published on February 10, 2005 and has a filing date of June 30, 2004. The present application has a filing date of October 29, 2003. Therefore, Wentink is not prior art under

102(a), (b), or (e). Wentink indicates on its cover page that it is a continuation-in-part of U.S. Application No. 10/353,391 filed on January 29, 2003, which issued as U.S. Patent No. 6,791,962. However, this parent application (10/353,391) does not disclose the subject matter that the Examiner is relying on in the present case. Therefore, the filing date of the parent application cannot be used as the prior art date for the rejections in the present case (see, e.g., MPEP 706.02(f)(1)). The parent application (10/353,391) and the patent that issued from it (6,791,962) do not mention anything about link margin or the use of link margin in the determination of transmit data rate or transmit power level.

Based on the foregoing, it is submitted that a prima facie case of obviousness has not been established with respect to claims 4-5, 8, 10-13, and 19-20. Reconsideration and allowance of these claims is therefore respectfully requested.

Claim 7 was rejected under 35 USC § 103(a) as being unpatentable over Wright et al. (U.S.6,173,159) and Khullar (U.S. 2002/0154611) as applied to claims above, and further in view of Klein et al. (U.S. 2003/0100328).

Claim 7 is a dependent claim that depends indirectly from independent claim 1. Consequently, claim 7 is allowable for at least the same reasons as claim 1. Claim 7 also provides further basis for patentability. That is, claim 7 further defines the received signal of claim 6, the data rate of which is used to determine receiver sensitivity, as a beacon signal. Neither Wright et al., Khullar, or Klein et al. disclose or suggest, either alone or in combination, the use a data rate of a received beacon signal to determine receiver sensitivity.

Claims 21 and 24 were rejected under 35 USC § 103(a) as being unpatentable over Wright et al. (U.S. 6,173,159) in view of Khullar (U.S. 2002/0154611) and further in view of Durham et al. (U.S. 2005/0030244).

Claim 21, as amended, is allowable for at least the same reasons as claim 9 discussed above.

Claim 24 is a dependent claim that depends directly from independent claim 21. Consequently, claim 24 is allowable for at least the same reasons as claim 21.

Claims 22 and 23 were rejected under 35 USC § 103(a) as being unpatentable over Wright et al. (U.S. 6,173,159), Khullar (U.S. 2002/0154611), and Durham et al. (U.S.

2005/0030244) as applied to claims above, and further in view of Wentink (U.S. 2005/0030976).

As described above, Wentink is not proper prior art in the present case. Therefore, a prima facie case of obviousness has not been established with respect to claims 22 and 23. Reconsideration and allowance of these claims is there respectfully requested.

Claims 25-28 were rejected under 35 USC § 103(a) as being unpatentable over Khullar (U.S. 2002/0154611) in view of Wentink (U.S. 2005/0030976).

As described above, Wentink is not proper prior art in the present case. Therefore, a prima facie case of obviousness has not been established with respect to claims 25-28. Reconsideration and allowance of these claims is there respectfully requested.

Claims 29-30 were rejected under 35 USC § 103(a) as being unpatentable over Khullar (U.S. 2002/0154611) in view of Wentink (U.S. 2005/0030976) as applied to claims above, and further in view of Belcea (U.S. 6,904,021).

As described above, Wentink is not proper prior art in the present case. Therefore, a prima facie case of obviousness has not been established with respect to claims 29-30. Reconsideration and allowance of these claims is there respectfully requested.

Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney (480-948-3745) to facilitate prosecution of this application.
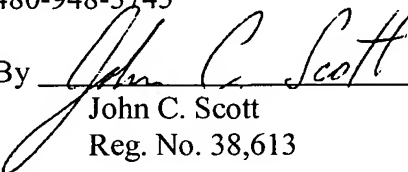
Respectfully submitted,

CHIH C. TSIEN ET AL.

By their Representatives,

CUSTOMER NUMBER: 45643
480-948-3745

Date: October 26, 2006   By _____
                                              John C. Scott
                                              Reg. No. 38,613

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Mail Stop Amendment, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 26th day of October, 2006.

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Shellie Bailey   Signature